

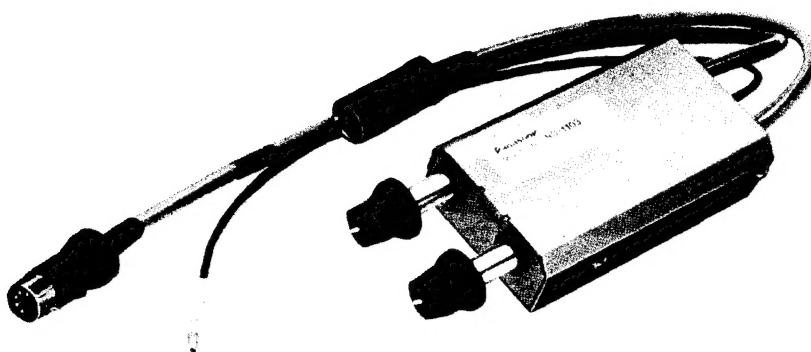
# Service Manual

Car Audio

AUTO VOLUME

RD-1103

CUSTOM-MADE FOR HONDA



Spare parts for this model have already been unable to supply.  
However, we un-officially may supply a few items.  
Please contact us regarding this matter.

## ■ SPECIFICATIONS

Power Source: DC 12 V (From RM-1100)  
Test Voltage: DC 14 V  
Power Consumption: 20 mA  
Auto Volume  
OFF Gain: 0 dB

Auto Volume Gain  
Control: 6~16 dB  
Input Speed Control: 0~240 km/H  
Tone Control: 10 dB (10 kHz)  
Dimension: 54 (W)×25 (H)×97 (D) mm  
(2 1/8"×1"×3 7/8")  
Weight: 0.18 kg (6 1/2 oz)

Specifications are subject to change without notice.

# Panasonic®

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Carolina, Puerto Rico 00630

LOCATION OF CONTROLS AND COMPONENTS

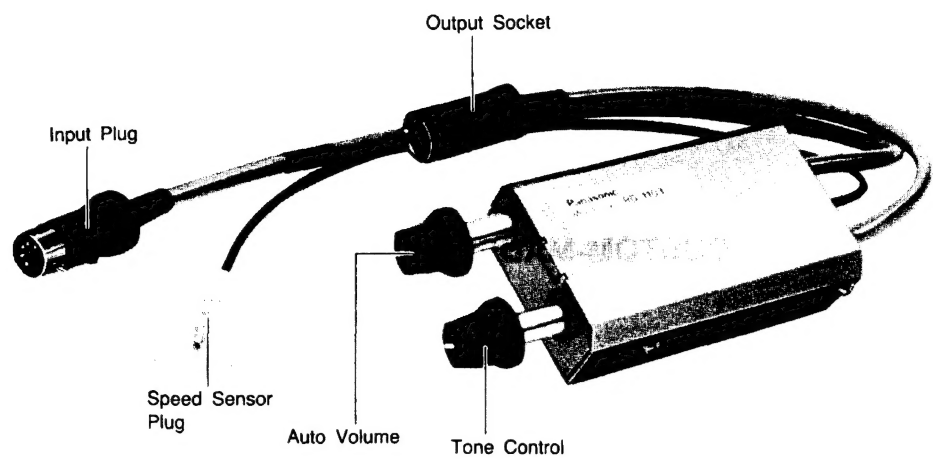


Fig. 1

DISASSEMBLY INSTRUCTIONS

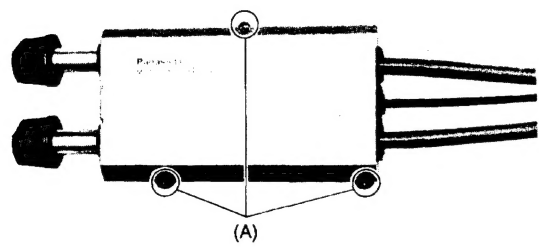


Fig. 2

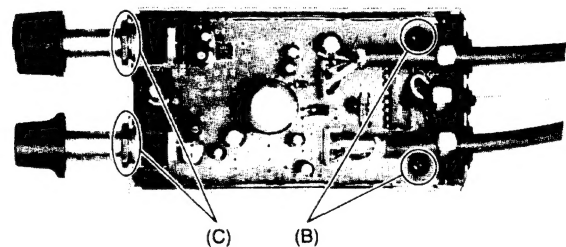
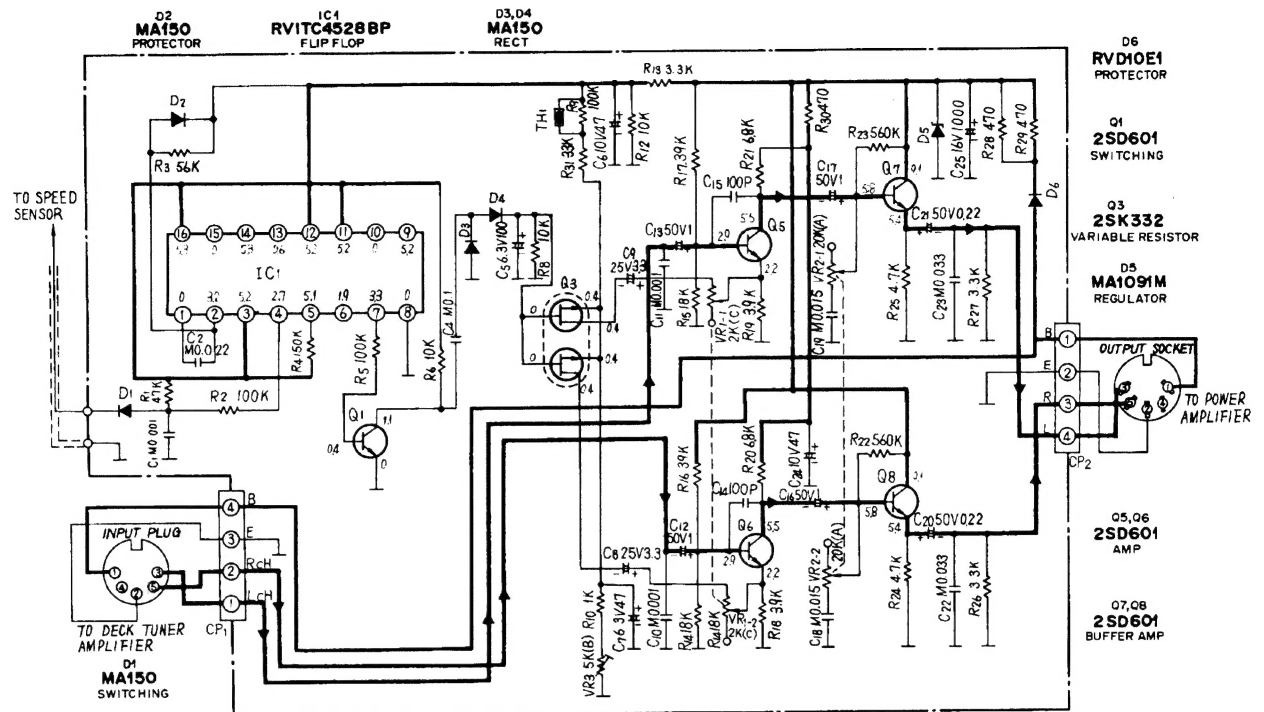


Fig. 3

Ref. No.	Procedure	Shown in Fig.—	To remove—	Remove—
1	1	2	Cover	Screw (3×6) ..... (A)×3
2	1, 2	3	Circuit Board	Screw (3×6) ..... (B)×2
3		3		Nut (Ø9) ..... (C)×2

# SCHEMATIC DIAGRAM MODEL RD-1103 (One FET Type)

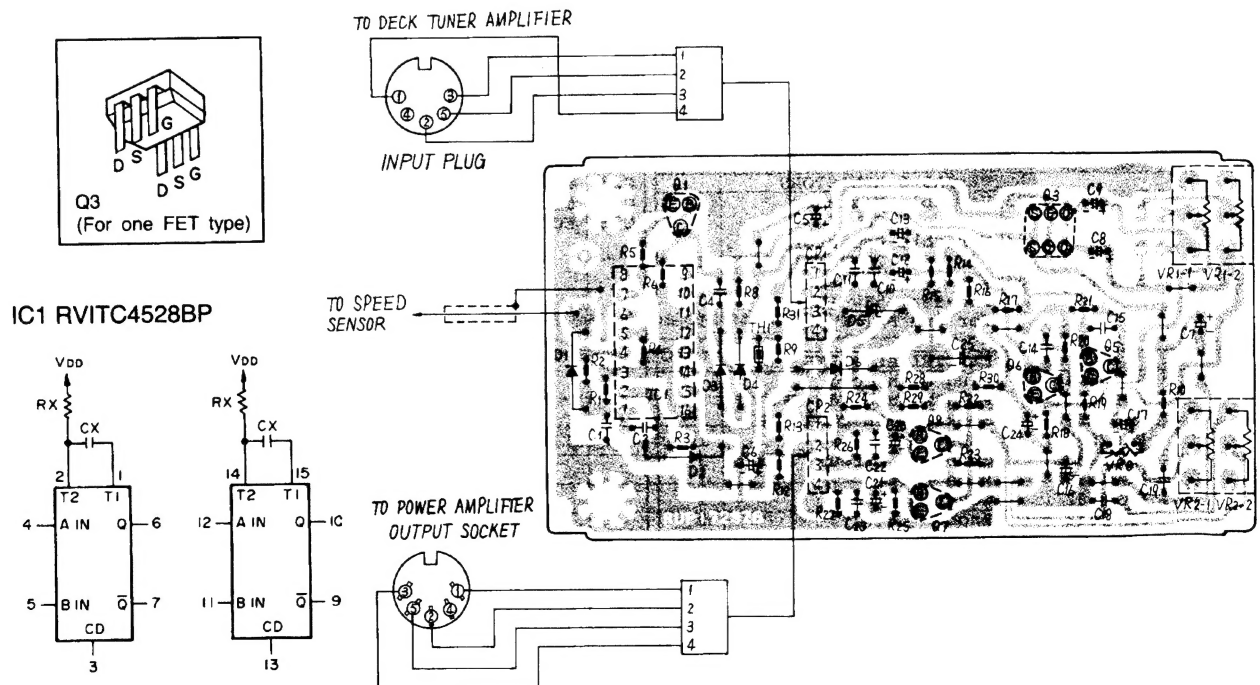


## Notes:

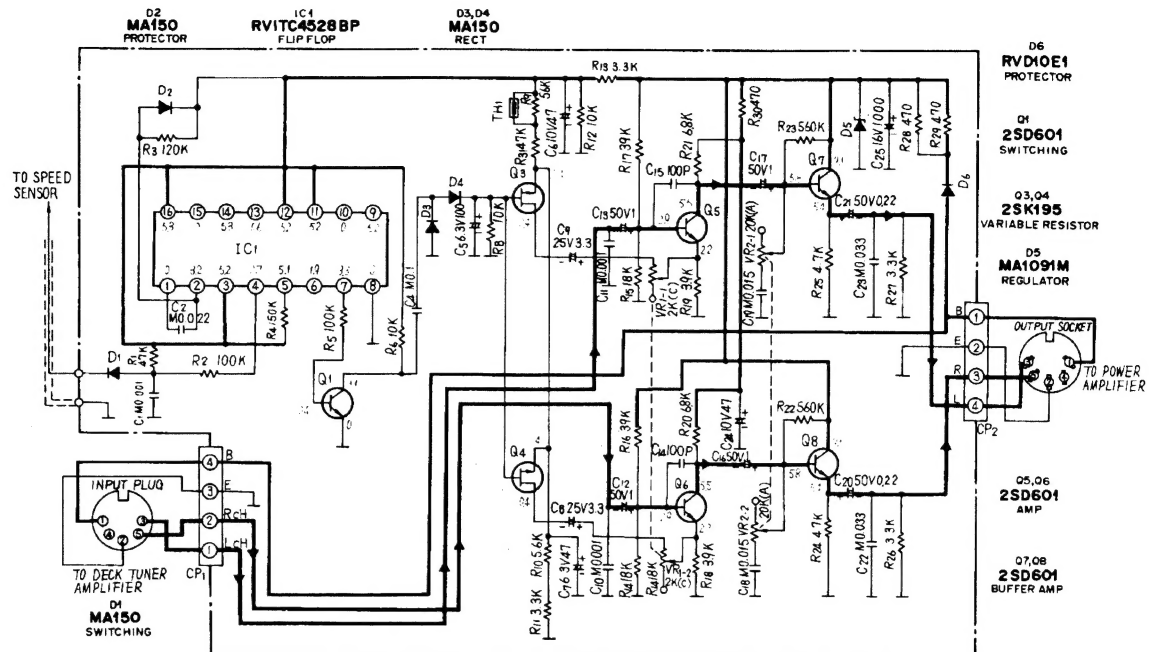
1. DC voltage measurements are taken with electronic voltmeter from negative voltage line.
2. VR1: Auto volume control VR.  
VR2: Tone control VR.  
VR3: Gain adjustment VR.

— Tape & AF Signal  
— + Voltage Line

## CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RD-1103 (One FET Type)



# SCHEMATIC DIAGRAM MODEL RD-1103 (Two FET Type)

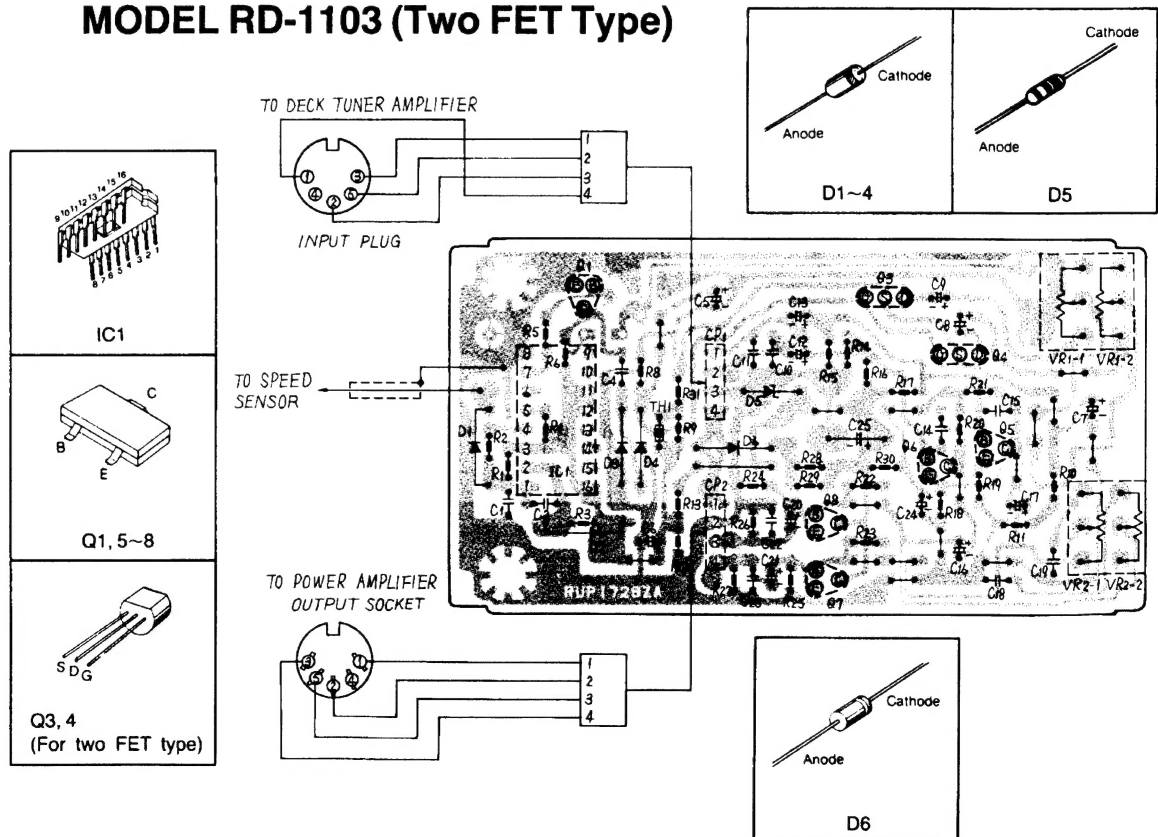


## Notes:

- DC voltage measurements are taken with electronic voltmeter from negative voltage line.
- VR1: Auto volume control VR.  
VR2: Tone control VR.

— Tape & AF Signal  
— + Voltage Line

## CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RD-1103 (Two FET Type)



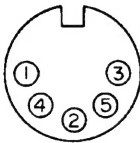
MEASUREMENTS AND ADJUSTMENTS

MAIN ALIGNMENT (For one FET Type)

1. Set tone control to maximum. 2. Auto volume control to center.				
RC OSCILLATOR ①	RC OSCILLATOR ②	AC VOLTMETER	ADJUSTMENT	REMARKS
Connect to input plug. ③...Lch ⑤...Rch ②...E (1 kHz, 1 mV)	Connect to speed sensor. (100 Hz, 5 V) (Rectangular Wave)	Connect to output socket. ③...Lch ⑤...Rch ②...E	VR3	Adjust VR3 so that $6\pm0.5$ dB is increased to the output value on condition that speed sensor is disconnected.

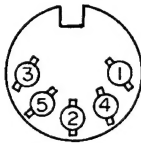


Fig. 4



Input Plug

Fig. 5



Output Socket

Fig. 6

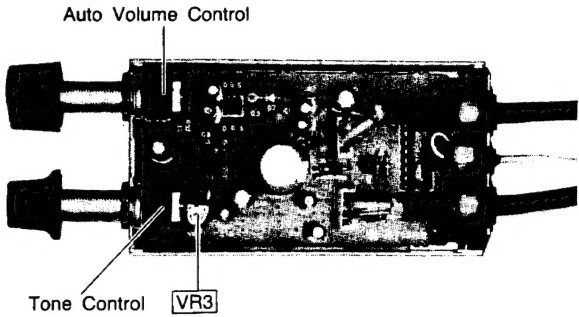


Fig. 7

ELECTRICAL PARTS LOCATION

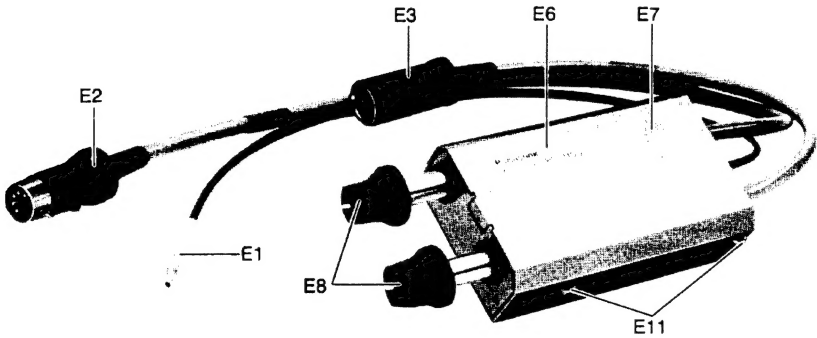


Fig. 8

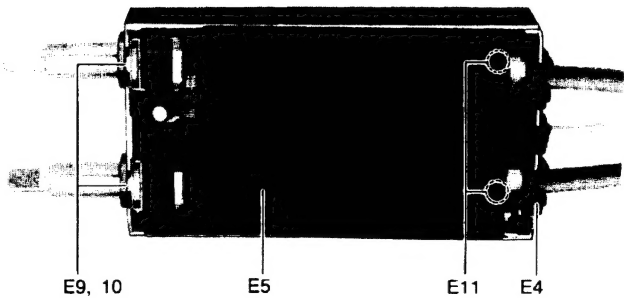


Fig. 9

## REPLACEMENT PARTS LIST.....RD-1103

## Notes:

(RD83072083C1)

1. Important safety notice.  
Components identified by  $\Delta$  mark have special characteristics important for safety.  
When replacing any of these components, use only manufacturer's specified parts.
2. The S mark indicates service standard parts and may differ from production parts.
3. RESISTORS & CAPACITORS  
Unless otherwise specified.  
All resistors are in OHMS ( $\Omega$ ) K=1000 $\Omega$ , M=1000k $\Omega$   
All capacitors are in MICRO FARADS ( $\mu$ F) P= $\mu$ F

\* Type & Wattage of Resistor  
Type

ERC: Solid	ERX: Metal Film	ERW: Wirewound Resistor
ERD: Carbon	ERG: Metal Oxide	ERS: Fusible Resistor
RRD: Chip	ERO: Metal Film	ERF: Cement Resistor

## Wattage

10, 16: 1/8W	14, 25: 1/4W	12: 1/2W	1: 1W	2: 2W	3: 3W
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\* Type & Voltage of Capacitor  
Type

ECFW: Semi-conductor	ECGD, ECKD, ECBT: Ceramic
ECQS: Styrol	ECQM, ECQV, ECQG: Polyester
ECUX: Chip	ECEA, ECSZ: Electrolytic
ECMS: Mica	ECQP: Polypropylene

## Voltage

ECQ Type	ECQG, ECQV, Type	ECSZ Type	Others
1H: 50V	0.5: 50V	OF: 3.15V	OJ : 6.3V
2A: 100V	1: 100V	1A: 10V	1A : 10V
2E: 500V	2: 200V	1V: 35V	1C : 16V
2H: 500V		OJ: 6.3V	1E, 25: 25V

Ref.No.	Part No.	Part Name & Description	Per Set
		INTEGRATED CIRCUIT, TRANSISTORS AND DIODES	
IC1	RVITC4528BP	IC	1
Q1, 5~8	2SD601Q	Transistor (Si)	5
Q3	2SK332D	Transistor (Si), For One FET Type	1
Q3, 4	2SK195F1	Transistor (Si), For Two FET Type	2
D1~4	MA161	Diode (Si)	4 S
D5	MA1091M	Diode (Si)	1
D6	SM112	Diode (Si)	1 S
		THERMISTOR	
Th1	RRT103	Thermistor	1
		VARIABLE RESISTORS	
VR1	EVK07A330C23	Variable Resistor, 2K $\Omega$ (C)	1
VR2	EVK93A330A24	Variable Resistor, 20K $\Omega$ (A)	1
VR3	EVNA6AA00B53	Variable Resistor, Pre-Set, 5K $\Omega$ (B), For One FET Type	1
		ELECTRICAL PARTS	
E1	RJP0F14Y	Plug with Cord	1
E2	RJP0F15Y	Plug with Cord, CP1	1
E3	RJS0R2Y	Socket with Cord, CP2	1
E4	RHG2033Z	Rubber, Cord	1
E5	RHG1080Z	Cushion, Circuit Board	1
E6	RGT1036Z	Name Plate	1
E7	RKF668Z	Cover	1
E8	RBN664Z	Knob	2
E9	XWSR9FZ	Washer	2
E10	RHE7034Z	Nut	4
E11	XTV3+6F	Screw, Circuit Board M'tg	5

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
	RESISTORS				
R1	RRD18XJ473	47K			
R2	RRD18XJ104	100K			
R3	RRD18XJ563	56K			
R4	RRD18XJ154	150K			
R5	RRD18XJ104	100K			
R6	RRD18XJ103	10K			
R8	RRD18XJ103	10K			
R9	RRD18XJ104	100K			
R10	RRD18XJ102	1K			
R12	RRD18XJ103	10K			
R13	RRD18XJ332	3.3K			
R14	RRD18XJ183	18K			
R15	RRD18XJ183	18K			
R16	RRD18XJ393	39K			
R17	RRD18XJ393	39K			
R18	RRD18XJ392	3.9K			
R19	RRD18XJ392	3.9K			
R20	RRD18XJ682	6.8K			
R21	RRD18XJ682	6.8K			
R22	RRD18XJ564	560K			
R23	RRD18XJ564	560K			
R24	RRD18XJ472	4.7K			
R25	RRD18XJ472	4.7K			
R26	RRD18XJ332	3.3K			
R27	RRD18XJ332	3.3K			
R28	RRD18XJ471	470			
R29	RRD18XJ471	470			
R30	RRD18XJ471	470			
R31	RRD18XJ333	33K			
	CAPACITORS				
C1	ECUX1H102MD	0.001			
C2	ECUX1H223MD	0.022			
C4	ECUX1E104MD	0.1			
C5	ECEA0JK101	100			
C6	ECEALAK470	47			
C7	ECEA0JK470	47			
C8	ECEALEK3R3	3.3			
C9	ECEALEK3R3	3.3			
C10	ECUX1H102MD	0.001			
C11	ECUX1H102MD	0.001			
C12	ECEALHK010	1			
C13	ECEALHK010	1			
C14	ECUX1H101K	100P			
C15	ECUX1H101K	100P			
C16	ECEALHK010	1			
C17	ECEALHK010	1			
C18	ECUX1E153MD	0.015			
C19	ECUX1E153MD	0.015			
C20	ECEALHKKR22	0.22			
C21	ECEALHKKR22	0.22			
C22	ECUX1E333MD	0.033			
C23	ECUX1E333MD	0.033			
C24	ECEALAK470	47			
C25	ECEALCSS102	0.001			